

REMARKS

As set forth in the co-filed Applicant Initiated Interview Request Form, PTOL-413A (1 page), in an Examiner Interview on August 14, 2003 between Attorney for Applicants, Serge J. Hodgson, and Examiner T. Dinh, the Examiner indicated that Claims 21-24 are withdrawn from consideration as being dependent upon withdrawn Claim 19. The Examiner acknowledged that the status of Claims 21-24 was not addressed by the Examiner in the June 3, 2003 Office Action.

In this Amendment, Claim 25 has been amended to incorporate the features of Claim 27. Accordingly, Claim 27 has been canceled without prejudice.

New Claims 33-38 have been added. Claim 33-38 read upon the elected Specie I. Support for Claims 33-35 appears in the specification at least at page 7, lines 20-35 and in FIG. 2. Support for Claims 36-38 appears in the specification at least at page 9, lines 5-23 and in FIG. 2.

The headings below are numbered to correspond with the heading numbering use by the Examiner in the Office Action.

1.) Election/restrictions.

The Examiner states:

Applicant's election of Group I, Specie I. (claims 1-5, 9-17, 19-20, and 25-27) in Paper No. 4 is acknowledged.

Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). (Office Action, page 2.)

The Examiner's statement is respectfully traversed. As set forth by Applicants at page 2 in the Response to Restriction Requirement filed on April 1, 2003:

Further, Applicants submit that Claims 1-2, 4, 9-10, 12-13-17, 19-20, 25-27 are generic and thus the election is made with traverse in that the Examiner

asserts that "Currently, Claims are not generic" at page 3 of the Office Action.

Accordingly, Applicants distinctly and specifically pointed out that in contrast to the Examiner's assertion that claims are not generic, Claims 1-2, 4, 9-10, 12-13-17, 19-20, 25-27 are generic. Thus, the election should be treated as an election with traverse.

The Examiner further states:

Claims 19-20, and 26-27 do not read on specie I (figures 1-2) **because they have limitations of "an optical component and transparent sealing material"**; therefore, claims 19-20, and 26-27 are withdrawn from further consideration as being drawn to non-elected claims (Office Action, page 2, emphasis added.)

The Examiner's statement is respectfully traversed. As set forth in the specification at page 8, lines 13-16 regarding FIGS. 1 and 2:

In one embodiment, sealing encapsulant 140 is opaque. However, as discussed further below, in alternative embodiments, **sealing encapsulant 140 is transparent.** (Emphasis added.)

Also, as set forth in the specification at page 9, lines 18-23 regarding FIGS. 1 and 2:

Planar central region CR is above electronic component 110 such that any **electromagnetic radiation passing through sealing encapsulant 140 to or from electronic component 110** is not distorted by exterior surface 142 as discussed in greater detail below with reference to FIGS. 3 and 4. (Emphasis added.)

Accordingly, the features of "an optical component and transparent sealing material" are specifically discussed in relation to FIGS. 1 and 2 and Claims 19-20, and 26 read on specie I. Thus, Applicants respectfully submit that Claims 19-24, and 26 should be reinstated and considered. In this

regard, Applicants respectfully submit that the Examiner has failed to callout where any of the cited art, alone in combination, teach or suggest a package comprising:

a substrate comprising:
a pocket; and
an overflow reservoir around a periphery of said pocket;
an optical element coupled within said pocket,
said optical element comprising an active area on a surface of said optical element;
a transparent sealing encapsulant filling said pocket; and
a transparent excess encapsulant within said overflow reservoir,

as recited in Claim 19, emphasis added. Accordingly, Claim 19 is allowable. Claims 20-24, which depend from Claim 19, are allowable for at least the same reasons as Claim 19.

2-3) Claims 1-4, 9-12, 14-16, and 25 are patentable over Pollack.

The Examiner states:

As to claim 1, Pollack discloses a package (100-figure 1) as shown in figures 1-9 comprising: a substrate (104, column 7, line 7) comprising: a pocket (114, column 7, lines 31-32); an overflow reservoir (chamber 112, column 7, line 31) around a periphery of said pocket; and a mating surface (a surface of a sidewall 108) around a periphery of said overflow reservoir (112); a first electronic component (IC 102, column 7, line 6) coupled within said pocket (114); a sealing encapsulant filling said pocket (column 7, lines 35-37), **said sealing encapsulant comprising an exterior surface coplanar with said mating surface;** and excess encapsulant within said overflow reservoir (see figures 1-3). (Office Action, page 3, emphasis added.)

The Examiner's statement is respectfully traversed. Applicants note that the Examiner cites Pollack at column 7, lines 35-37:

Both chambers 112 and 114 have a base and sidewalls, and are open at their tops so that they can be filled with encapsulating material, **as described in greater detail hereinbelow.** (Emphasis added.)

Applicants note that in Pollack at column 19, line 47, the heading "Two-Stage Potting Process" appears. Following this heading at column 20, line 22-38, Pollack teaches:

As shown in FIG. 7B, in a first step of encapsulating the electronic components disposed within the encapsulation package 704, the inner chamber 714 is at least partially filled with a quantity of potting compound (encapsulation material) 715 which is sufficient to completely cover portions of the leadframe fingers (730b and 730f) within the inner chamber 714, the printed circuit board 720, the wires 726 and, optionally, the component 728, but not so much that the potting compound 715 "spills" over the inner wall 710 separating the inner chamber 714 from the outer chamber 712. In this figure, **the potting compound 715 is shown as having a "positive" meniscus (bowing up in the middle and down at the edges).** It is within the scope of this invention that **a potting compound having a "negative" meniscus (bowing down in the middle and up at the edges) can be used** to encapsulate the circuit module 702 within the inner cavity 714. (Emphasis added.)

Accordingly, Pollack teaches the potting compound is in the shape of a positive or negative meniscus. The Examiner has failed to call out where Pollack teaches or suggests that the potting compound has a planar exterior surface.

For at least the above reasons, Pollack does not teach or suggest a package comprising:

- a substrate comprising:
 - a pocket;
 - an overflow reservoir around a periphery of said pocket; and
 - a mating surface around a periphery of said overflow reservoir;
- a first electronic component coupled within said pocket;

a sealing encapsulant filling said pocket, **said sealing encapsulant comprising an exterior surface coplanar with said mating surface**; and
excess encapsulant within said overflow reservoir,

as recited in Claim 1, emphasis added. Accordingly, Claim 1 is allowable over Pollack. Claims 2-4, 9-12, 14-16, and new Claims 33-35, which depend from Claim 1, are allowable for at least the same reasons as Claim 1. Further, Claims 6-8, which have been withdrawn, depend from allowable generic Claim 1, and should thus be allowed for at least the same reasons as Claim 1.

For similar reasons, Pollack does not teach or suggest a package comprising:

a substrate comprising a mating surface and a means for containing an electronic component;
a means for protecting said electronic component filling said means for containing, **wherein said means for protecting comprises an exterior surface coplanar with said mating surface**; and
a means for preventing said mating surface from being contaminated by said means for protecting,

as recited in amended Claim 25, emphasis added. Accordingly, Claim 25 is allowable over Pollack. Claim 26, which depends from Claim 25, is allowable for at least the same reasons as Claim 25.

For the above reasons, Applicants respectfully request reconsideration and withdrawal of this rejection.

4-5) Claim 5 is patentable over Pollack in view of Wyland et al.

As discussed above, Claim 1 is allowable over Pollack. Claim 5, which depends from Claim 1, is allowable over Pollack for at least the same reasons as Claim 1. Wyland et al. does not cure the previously described deficiencies of Pollack.

Accordingly, Claim 5 is allowable over Pollack in view of Wyland et al.

For the above reasons, Applicants respectfully request reconsideration and withdrawal of this rejection.

As to new Claims 36-38.

Claim 36 recites a package comprising:

a substrate comprising:
a pocket;
an overflow reservoir around a periphery of said pocket;
a runner surface extending between said pocket and said overflow reservoir; and
a mating surface around a periphery of said overflow reservoir;
a first electronic component coupled within said pocket;
a sealing encapsulant filling said pocket, **said sealing encapsulant extending over said runner surface;**
and
excess encapsulant within said overflow reservoir.
(Emphasis added.)

Applicants respectfully submit that the Examiner has failed to call out where any of the cited art, alone or in combination, teach or suggest a package as recited in Claim 36.

Accordingly, Claim 36 is allowable. Claims 37-38, which depend from Claim 36, are allowable for at least the same reasons as Claim 36.

CONCLUSION

Claims 1-17, 19-26, 33-38 are pending in the application.

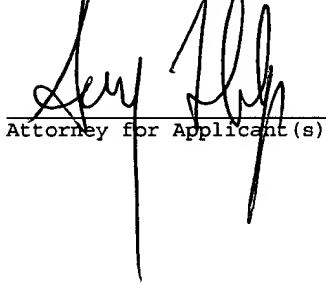
For the foregoing reasons, Applicants respectfully request allowance of all pending claims. If the Examiner has any questions relating to the above, the Examiner is respectfully

Appl. No. 09/891,678
Amdt. dated August 21, 2003
Reply to Office Action of June 3, 2003

requested to telephone the undersigned Attorney for
Applicant(s).

CERTIFICATE OF MAILING

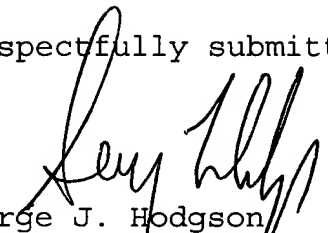
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August 21, 2003
Date of Signature

Respectfully submitted,


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